



The importance of a sound roof is hardly a modern concept—18th-century Americans knew it too. In 1784, George Washington himself complained of being "plagued with leaks at a Cupula, etc.", and three years later admonished his nephew about that same cupola: "Let particular care be used to putty, or put copper on all the joints to prevent the leaking, & rotting of the wood as it will be difficult, & expensive to repair it hereafter." A leaky roof has been a headache through the ages, and makes the Mount Vernon architectural preservation staff feel particularly close to the General. Like him, we are fighting the endless war to prevent leaks and rotting of the shingles, and 2015 opens another chapter.

In Washington's lifetime, wood was the overwhelming choice for Virginia roofs, and he purchased hundreds of thousands of shingles for Mount Vernon—most of them split from cypress trees cut in the Dismal Swamp of southeastern Virginia. Cypress is naturally rot resistant, and an old growth cypress roof was expected to provide cover for 50 years or more.

Besides having the savvy to choose one of the best woods for his shingles, Washington also knew the importance of shingle care. Sun and rain give roofs a beating, and the period practice of painting roofs with tar or oil-based paints was an attempt to extend the life of shingles by sealing them and replacing their natural oils. The red color used on Mount Vernon's roof today was matched to the paint preserved on an original shingle found in the mansion attic, apparently dropped during shingle replacement in the 1800s. This red color was used on the Mansion by 1793 when artist Edward Savage executed his two views of Mount Vernon.

¹George Washington to William Hamilton, April 6, 1784; George Washington to George Augustine Washington, August 12, 1787





REPLICATING WASHINGTON'S SHINGLES

Photos from Left to Right

Courtesy of The Mount Vernon Ladies' Association

The West Front of Mount Vernon by Edward Savage

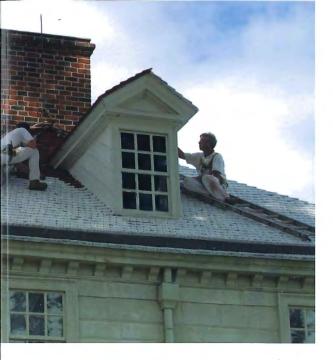
18th-century Mansion shingles on the east slope trapped under the Piazza roof

18th-century Mansion roof shingle used for paint analysis

Workers paint Mansion roof shingles in 2005

Cover image: Photograph by Buddy Secor, 2015

Here at Mount Vernon, we continue traditional roofing practices. Over the years, wood choices might have varied due to availability, and paint types may have changed with new innovations, but painted wood roofs have been in place on the buildings at Washington's estate for almost 300 years. But all roofs eventually come to the end of their useful lives and need replacement. Over the last three decades, our preservation experts have used these instances as opportunities to return more and more to the materials and techniques known to Washington. In 1996, the Mansion roof was replaced with shingles, hand-split from old-growth cypress logs that sank into the swamps of Florida more than a century ago. They are nearly identical to what Washington would have ordered himself.



IT'S ALL ABOUT THE PAINT

Having gone to great lengths to use the same type and quality wood as Washington, we are now giving the same thoughtful attention to the paint that helps extend the life of the roof. In the 18th century, roofs were frequently treated with paints that used fish oil to bind together the pigments, but today no fish oil paints are commercially available. Consequently, Mount Vernon began using modern paints to achieve its trademark red roofs. Unfortunately, the paint chosen

was not robust enough to withstand the harsh effects of weather and sun, and the paint began peeling and fading within a few years of application, requiring frequent stripping and repainting.

Today, rapid advances in technology and paints mean that we have new options. After experimenting with several formulas, we have settled on a commercially-available, oil-based paint that is extremely close to the traditional 18th-century fish oil formulation. Unlike the current paint, this will not sit on the surface of the shingle, but rather be absorbed much like a stain, and therefore should never peel or require stripping. When the color begins to fade, a new application will be made directly over the prior one. This will result in significant cost savings, as we will no longer need to strip the shingles to apply a new coat as the old one begins to fade.

We have already begun stripping the Mansion roof, making repairs (they never end!) and repainting it with the new paint. This is a huge undertaking, and we expect it will take a year for completion.

Your gift today will help ensure the Mansion has a leak-free roof of the highest quality, keeping the Mansion and its contents safe and dry for many years to come.

With your generous support, The Mount Vernon Ladies' Association will continue to preserve and protect the home of George Washington, maintaining the highest standards of conservation and care, while continually striving to restore his beloved home to its appearance in 1799.

For more information, please contact the Development Department at 703.799.8647, by e-mail to supporthisvision@mountvernon.org, or online at mountvernon.org/RedRoof.





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